

5 ways Ansible Automation Platform helps manage JBoss EAP Day 2

Day 2 operations generally relate to activities performed on a system once it's been planned (Day 0) and installed (Day 1). There are many Day 2 operations in the administration of JBoss® Enterprise Application Platform (EAP). These tasks often follow similar patterns that Red Hat® Ansible® Automation Platform can help manage by providing a layer of control for operations teams. In this checklist, learn five ways you can use Red Hat Ansible Automation Platform to automate your JBoss EAP Day 2 operations.

1 Automation of repetitive tasks

Many JBoss EAP Day 2 activities are repetitive. Often the same steps can be performed with minor changes from previous runs. Tasks that can be automated with scripts, include:

- ▶ Downloading files, patches, updates, and modules.
- ▶ Applying updates.
- ▶ Deploying new modules and applications.
- ▶ Fine-tuning (e.g., updates to system resource limits).
- ▶ Performing drift detection and housekeeping activities.
- ▶ Managing underlying dependencies (e.g., Java™).

Ansible Automation Platform includes logic for connecting to remote systems, determining idempotency of tasks (only executing if required), along with the basic capabilities of managing files. Roles and collections take advantage of these capabilities, having been built for JBoss EAP, and can be augmented as needed by customers.

Day 2 operations also often require a set of preflight and postflight tasks, ensuring the system is operational before and after, and an archive of the before state in case of issues requiring rollback. Ansible Automation Platform allows this by providing a set of reusable roles, helping operations teams focus on the task at hand.

2 Failure detection and recovery

When an update is performed on production servers, it's critical to be able to determine the success of the operation and to take corrective action in the case of failure.

With Ansible Automation Platform, detection and recovery mechanisms can be automated as part of the process. For example, when performing an upgrade to a JBoss EAP server, Ansible Automation Platform will first perform a backup and archive of the current installation. Once the upgrade is complete, tasks can be run to determine the success of the upgrade and the overall status of the server and applications deployed. If failure is detected for any reason, Ansible Automation Platform can trigger recovery processes, including performing an automatic restore, or alerting operations teams to enable corrective measures interactively (ChatOps).

3 Approval process workflow

Many IT organizations have a mandate to control and restrict operations that will impact production workloads. While it's convenient for operations teams to be able to perform updates to lower environments (e.g., development, testing, etc.), any updates to higher environments (e.g., end-user testing and production) should require elevated privileges and be tracked by auditing.

Ansible Automation Platform automation controller introduces role-based access control (RBAC), workflows, and continuous integration and continuous delivery (CI/CD). Operations teams have the flexibility to perform updates to

their JBoss EAP fleet deployed on lower environments (e.g., carrying out testing), but need authorized personnel to upgrade higher environments (e.g., automated production updates).

In addition to managing workflows and processes, Ansible Automation Platform is able to integrate security information and event management (SIEM) systems to ensure the aggregation and management of log data in a centralized server.

4 Drift detection and housekeeping

Managing a large number of JBoss EAP deployments can become complex. As the number of server installations increases, so does the complexity of routine housekeeping and potential drift detection from the desired state.

Using Ansible Automation Platform allows operations teams to perform routine checks on their JBoss EAP servers to:

- ▶ Ensure they are running the correct server and patch level.
- ▶ Ensure that no changes have been made to the configuration by manual updates.
- ▶ Perform other regular housekeeping operations (e.g., disk cleanup).

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Explore how Ansible Automation Platform can help your organization automate JBoss EAP Day 2 activities with a [no-cost, 60-day trial](#).

These checks can be performed as part of regular upgrade and patch processes, ensuring the servers are at the expected state prior to performing the operation.

Certified ServiceNow® integration for ITSM (IT Service Management) and CMDB (configuration management database) operations enable Ansible Automation Platform to update configuration information and create incidents for automated tasks. For example, they maintain up-to-date JBoss EAP versions and patch levels in CMDB.

5 Rebuilding and scaling environments

As Day 2 operations are performed on the JBoss EAP servers, it's important these deployments can be easily rebuilt in case of catastrophic failure. With Ansible Automation Platform, your JBoss EAP servers can be restored to their required working state by running a set of playbooks. This process is fundamental to the infrastructure-as-code philosophy and allows you to rebuild environments in case of failure and to deploy additional instances to respond to increased demand.

Check out the ansible-middleware collection

The [Wildfly Collection for Ansible](#) provides several playbooks to help install, set up, and maintain JBoss EAP.



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